

Biotin anti-human IL-4

Catalog # / Size: 500803 / 50 µg
500804 / 500 µg

Clone: MP4-25D2

Isotype: Rat IgG1, κ

Immunogen: CHO-expressed, recombinant human IL-4

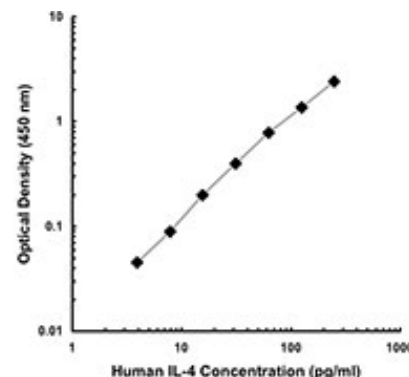
Reactivity: Human, **Cross-Reactivity:** Swine (Pig, Porcine), Rhesus

Preparation: The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



Applications:

Applications: ELISA Detection, ELISPOT Detection, ICFC

Recommended Usage: Each lot of this antibody is quality control tested by ELISA assay. For use as an ELISA detection antibody, a concentration range of 0.25-1.0 µg/ml is recommended. To obtain a linear standard curve, serial dilutions of human IL-4 protein ranging from 500 to 2 pg/ml are recommended for each ELISA plate.

Application Notes: **ELISA Detection^{1,3} or ELISPOT Detection^{4,5}:** The biotinylated MP4-25D2 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with purified 8D4-8 antibody (Cat. No. 500702/500707) as the capture antibody.

Flow Cytometry^{6,9}: The fluorochrome-labeled MP4-25D2 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IL-4-producing cells within mixed cell populations. For intracellular cytokine staining protocol, please visit www.biolegend.com and click on the support section.

Neutralization⁷⁻³: The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of human IL-4 bioactivity (Cat. No. 500815). The MP4-25D2 antibody can neutralize the bioactivity of natural or recombinant IL-4.

Application References:

- Chretien I, *et al.* 1989. *J. Immunol. Methods* 117:67. (ELISA Detection, Neut)
- Ramanathan L, *et al.* 1993. *Biochem.* 32:3549. (Neut)
- Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (ELISA Detection, Neut)
- Mahanty S, *et al.* 1992. *J. Immunol.* 148:3567. (ELISPOT Detection)
- Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.19. (ELISPOT Detection)
- Prussin C, *et al.* 1995. *J. Immunol. Methods* 188:117. (ICFC)
- Raqib R, *et al.* 1995. *Infect. Immun.* 63:289.
- Andersson J, *et al.* 1994. *Immunology* 83:16.
- Iwamoto S, *et al.* 2007. *J. Immunol.* 179:1449. (ICFC) PubMed
- Kubota M, *et al.* 1997. *J. Immunol.* 158:5321.
- Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113. PubMed

Description: IL-4 is a pleiotropic cytokine that is produced by activated T cells, mast cells, and basophils. IL-4 elicits many different biological responses but has two dominant functions. The first is regulating differentiation of naïve CD4⁺ T cell to the Th2 type. Th2 cells produce IL-4, IL-5, IL-10, and IL-13, which tend to favor a humoral immune response while suppressing a cell-mediated immune response controlled by Th1 cells. The second is regulating IgE and IgG1 production by B cells.

- Antigen References:**
- Fitzgerald K, *et al.* Eds. 2001. *The Cytokine FactsBook*. Academic Press San Diego.
 - Boulay J, *et al.* 1992. *Curr. Opin. Immunol.* 4:294.
 - Dullens H, *et al.* 1991. *In vivo* 5:567.
 - Paul W. 1991. *Blood* 77:1859.

Related Products:

Product	Clone	Application
LEAF™ Purified anti-human IL-4	8D4-8	ELISA Capture, ELISPOT Capture, ICFC, IHC, IP, Neut
Purified anti-human IL-4	8D4-8	ELISA Capture, IHC, IP
Recombinant Human IL-4	rh IL-4	BA, ELISA
HRP Avidin	Avidin	ELISA, ELISPOT, IHC, WB
TMB Substrate Reagent Set		ELISA
ELISA Assay Diluent (5X)		ELISA
Human IL-4 ELISA MAX™ Standard		ELISA
Human IL-4 ELISA MAX™ Deluxe		ELISA



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